

Title (en)

Pressure regulated free-ink ink jet pen

Title (de)

Tintenstrahlschreiber mit druckregulierter freier Tintenzuführung

Title (fr)

Dispositif d'écriture à jet d'encre de type encre libre à pression régulée

Publication

EP 0760288 B1 20020724 (EN)

Application

EP 96300511 A 19960125

Priority

US 51884795 A 19950824

Abstract (en)

[origin: EP0760288A1] The present invention relates to free-ink type ink-jet pens (FIG.1). A spring-loaded regulator mechanism is provided within the pen to allow ink from a pressurized ink reservoir to be fed to the pen while maintaining a predetermined set point back-pressure at the printhead (7) as needed for appropriate pen operation. A mechanism (e.g., 23, 223, 523, or 623) in communication with the ambient atmosphere is used in conjunction with a substantially constant force biasing mechanism (e.g. 29, 31, or 229, 231, or 529, 531, or 629, 631) to maintain the balance between the countervailing forces. Back-pressure is maintained substantially constant regardless of the ink flow rate from the ink reservoir into the pen. <IMAGE>

IPC 1-7

B41J 2/175

IPC 8 full level

B41J 2/175 (2006.01); **G01F 23/00** (2006.01); **G01F 23/72** (2006.01)

CPC (source: EP US)

B41J 2/175 (2013.01 - EP US); **B41J 2/17513** (2013.01 - EP US); **B41J 2/17523** (2013.01 - EP US); **B41J 2/17553** (2013.01 - EP US);
B41J 2/17556 (2013.01 - EP US); **B41J 2/17566** (2013.01 - EP US); **B41J 2/17596** (2013.01 - EP US); **G01F 23/003** (2013.01 - EP US);
G01F 23/72 (2013.01 - EP US); **B41J 2/17503** (2013.01 - EP US); **B41J 2002/17516** (2013.01 - EP US)

Cited by

EP1914080A1; EP0891866A3; CN105939859A; EP1348561A1; EP1440808A1; EP1016533A4; US6986568B2; US6692117B1; WO9716315A1;
US10076908B2; US7011397B2; US7090341B1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0760288 A1 19970305; EP 0760288 B1 20020724; DE 69622480 D1 20020829; DE 69622480 T2 20021107; JP 3798079 B2 20060719;
JP H09118021 A 19970506; US 5736992 A 19980407; US 5844577 A 19981201

DOCDB simple family (application)

EP 96300511 A 19960125; DE 69622480 T 19960125; JP 22253196 A 19960823; US 51884795 A 19950824; US 96394997 A 19971104